UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 6
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DALLAS TX 75202-2733

FEB 07 2013

Mr. David Keith
Project Coordinator
Anchor QEA, LLC
614 Magnolia Avenue
Ocean Springs, MS 39654

RE: Baseline Ecological Risk Assessment
San Jacinto River Waste Pits Superfund Site, Harris County, Texas
Unilateral Administrative Order, CERCLA Docket No. 06-03-10

Dear Mr. Keith:

The U.S. Environmental Protection Agency (EPA) has completed its review of the above referenced document dated August 2012. The EPA approves this document with the following modifications:

1. (Sec. 3.4.4): The full citation for the Shields 2012 reference (related to the brown pelican range) is not provided in the list of references. This citation shall be added.

2. (Sec. 3.4.4): There is a typographic error in the last sentence of Section 3.4.4. The reference to Section 4.1.3.6 shall be revised to state Section 4.3.1.6.

3. (Table 4-8): The table was not revised to indicate that the raccoon's fish dose was modeled for peninsula fish only as was stated in the response to comment number 67; it currently states "site wide". The table shall be revised to include this.

4. (Sec. 5.3; 6.2.3; and Table B-4): Laboratory studies in Wintermyer and Cooper (2003) are relevant to these sections. In addition to the reproduction studies of the oysters transplanted to impacted field locations in New Jersey, Wintermyer and Cooper injected (laboratory) adult oysters with tritium-labeled TCDD, and these were strip spawned after 28 days of exposure. Eggs from each treatment group were fertilized with sperm from the corresponding treatment group. The nominal concentrations were 2.0 and 20 pg/g and the concentrations in tissue were reported as 0.966 and 27.7 pg/g TCDD. For both treatment groups, there was a reduction in the number of veliger larvae compared to controls. For the 2.0 pg/g treatment group, roughly half of the eggs were fertilized, and of those, there was 100% mortality within 48 hours. This lab study indicates a tissue LOAEC for impaired reproduction and reduced larval survival as low as 1 pg/g or 1 ng/kg. The BERA shall be revised to address this result.

5. (Sec. 7.2.2.1): "PCBs" shall be removed from the title for this section because PCBs are not discussed there.

6. (References): The link provided in the reference section for the U.S. Environmental Protection Agency paper on dioxin bioavailability (USEPA, 2010b) is incorrect and shall be revised.

7. (References): The full citations for U.S. EPA (1986) and WHO (2001) in Table 5-1 were not carried forward to the reference list. These shall be added to the reference list.

8. (Table B-12): This table lists the data used to develop fish tissue-based toxicity reference values (TRV). Suitable data references should be judged on criteria including sensitive life stage, chronic exposures, a protective endpoint (mortality is not very protective), species representative of the site receptors, and evaluating PCBs as a mixture (because that is what the site exposure would be). The following data sources are not appropriate for the reasons given, and shall not be included in the TRV derivation:

    a. Duke et al 1970 (only examined acute exposures);
    b. Lieb et al 1974 (used rainbow trout, a coldwater species not representative of Gulf of Mexico fish);
    c. Nestel and Budd 1975 (used rainbow trout, a coldwater species not representative of Gulf of Mexico fish);
    d. Mauck et al 1978 (used brook trout, a coldwater species not representative of Gulf of Mexico fish);
    e. Berlin et al 1981 (used lake trout, a coldwater species not representative of Gulf of Mexico fish);
    f. Mac and Seelye 1981 (used lake trout, a coldwater species not representative of Gulf of Mexico fish); and
    g. Powel et al 2003 (used chinook salmon, a coldwater species not representative of Gulf of Mexico fish).

    Instead, the following data sources shall be included in the TRV derivation:

    a. Orn et al 1998 ("The Impact on Reproduction of an Orally Administered Mixture of Selected PCBs in Zebrafish (Danio rerio)"); LOAEL 2.7 mg/kg.
    b. Westin et al 1983 ("Effects of Parental and Dietary PCBs on Survival, Growth, and Body Burdens of Larval Striped Bass"); NOAEL 3.1 mg/kg.

9. (Appendix E): The table of contents shall be updated to reflect the additions of Sections 2.3.1.4 and 2.4.3.

Please provide copies of the final document to the distribution list. Please contact me at (214) 665-8318, or by email at miller.garyg@epa.gov if there are any questions or comments.

Sincerely,

Gary Miller
Remedial Project Manager

cc: Luda Voskov (TCEQ)
Bob Allen (Harris County)
Linda Henry (Port of Houston)
Jessica White (NOAA)
Jane Sarosdy (TGLO)